# "Terrain" Guide

(these instructions are meant to be read along with watching the video tutorials)

### Setup

1. start from a Unity Oculus "template" project, like the one created in **Spatial computing 2, lab 1**
2. download "**terrain\_teacher\_pack" zip**, unzip, copy contents into project assets. Might take time to import!
3. make sure in the new "texture" folder, that all the normal are defined as normal (see vid for instructions, Might take time)
4. Make sure oculus pack is updated (delete, import, upgrade all dialogs)
5. Change name of project, folder and in player settings to something like "terrain"
6. from asset store, import: "8K Skybox Pack Free" (Might take time)
7. from asset store, import: "Mobile tree package (by Laxer) " (will appear as "laxer free pkg" in assets, might take time)
8. from the files copies in step 2, import package->custom package -> "dustStorm.unitypackage". (will appear as "standard assets" folder in assets, might take time)

### Steps

1. change sample scene to "terrain"
2. delete cam, replace with "OVRPlayerController". give it these parameters:  
   Graphical user interface

   Description automatically generated
3. Change skybox to one of the nice 8k ones (sky 5, 6, your taste)
4. Create a terrain
5. change terrain transform to:  
   Graphical user interface

   Description automatically generated with medium confidence
6. go to terrain settings (icon), and change the settings to: (yes, there are a lot of them)…  
   Graphical user interface

   Description automatically generated with medium confidence  
   Graphical user interface, text, application, email

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7. In terrain inspector, select paint terrain (icon)
8. edit terrain layers, create layer, 02 grass 1, then add the normal (see vid for instructions)
9. repeat step 8 to create layers for dry land, dirt, ground stone, snow, maybe other grass.
10. in the paint terrain tool, switch to "raise or lower terrain"
11. start with the brush "built in brush 6", size about 100, 0pacity about 50 (play with it!)
12. create mountains, hills, play with brushes, opacity.
13. experiment also with smooth height option (see vid for instructions)
14. change paint tool to "pain texture", use your dirt, ground, snow!
15. you can always re-adjust the mountains/hills etc.
16. time for trees! switch to the "pain trees" tool
17. edit trees->add tree, look for the prefab "baum id0". bend factor: 0.5, add.
18. to start, set brush to:  
    Graphical user interface

    Description automatically generated
19. of course, you can experiment with other settings!
20. add 2 more tree prefabs: baum id1, baum id2 (both bend factor 0.5)
21. pain more trees/kinds! (don't overdo…)
22. to delete trees: shift click or shift+ctl click
23. you can also experiment with the "mass place trees" tool
24. once you have enough trees: switch to "paint details"
25. edit details, add grass texture, "ast4", give it the following parameters:  
    Graphical user interface, application

    Description automatically generated
26. paint some grass! start close to the camera, 0,0,0 to get the "feel" for its height, density and wind bend. (see vid for instructions)
27. you can add a second kind of grass (ast 5), OR import from the asset store a package called "Grass flowers pack free", from ALP8310" (might take time to import), it has great flowers
28. From asset store import "**Ruins Creation Kit (free),** then place on the scene, see vid for tips on placement
29. (optional) add mesh colliders to all the " **Ruins Creation Kit" parts (see vid for details)**
30. Same as last step: import "Round tower", (place on a hill? maybe more than 1?)
31. (optional) add mesh colliders to all the "**round tower" parts (see vid for details)**
32. add dust/fog. (drag from standard assets->particle->prefabs). you can use more than one, **but don't overdo**.
33. make sure the y of the dust is at least 3
34. From asset store import "**#NVJOB Simple Boids (Flocks of Birds, Fish and Insects, free),** then place on the scene, **see vid for tips** on parameters. you can position:  
    **Graphical user interface, table

    Description automatically generated**
35. Next: you can adjust the color/angle of the directional light for mood
36. Change OVR player controller character controller radius to 0.1
37. add a plain, with following parameters:   
    Graphical user interface

    Description automatically generated with medium confidence
38. Add windzone (play with settings, see vid)
39. Add empty game object "wind sounds", add Audiosource "WIND SOUND EFFECTS", loop, volume: 0.3
40. to the wind sound game object, add a audio reverb zone. change settings to "forest", than to "user", then tweak to:  
    Chart, scatter chart

    Description automatically generated
41. Add empty game object "music", add Audiosource "music", loop, volume: 0.7
42. Change OVRPlayerController parameters to:  
    Graphical user interface

    Description automatically generated
43. Time to add a JUMP.Open the OVRPlayerController **script for editing.**
44. After line 275 **UpdateMovement().** AS OF JAN 2022 that is the line number

add: **if (OVRInput.GetDown(OVRInput.Button.One)) Jump();  
it should become line 276.**Text

Description automatically generated

1. on line 358, after **if (!Controller.isGrounded), comment out the line**//MoveScale = 0.0f; (AS OF JAN 2022 that is the line number)  
   Text

   Description automatically generated with medium confidence
2. Build what we have so far to the Oculus. (might take time….) make adjustments if needed!
3. Customize: go to the asset store. find an interesting object to add. (castle? bridge? structure? columns? )- add to the scene! **(advice: make backup of project BEFORE you import)**
4. Build again to Oculus! (might take time….)
5. Something to try: change quality to **ultra**. (you might also want to change the shadow settings of the directional light to strength 0.2
6. Take a video, in the Oculus, about 1 min, of moving around in the terrain, +demonstrate jumping! to copy the video once its captured, look for it in a folder called "video shots" inside the folder called "oculus".  
   For windows users: <https://www.youtube.com/watch?v=EYKsELDKBxo>

for Mac users: <https://www.youtube.com/watch?v=57v_yUWAZeI>

Once video is on your computer, change its name to **terrain\_yourname.mp4**, and submit! just the video! (no need to zip and submit the whole Unity project)